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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,381	09/23/2003	Masato Terao	243087US2	1933
22850	7590	04/02/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			QIN, YIXING	
			ART UNIT	PAPER NUMBER
			2625	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/667,381	Applicant(s) TERAO ET AL.	
	Examiner Yixing Qin	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/18/04, 6/16/04, 6/21/05, 10/7/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-43, 68-71 rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (U.S. Patent No. 5,839,019)

Regarding claims 1, 68, Ito discloses an image forming apparatus comprising:
a hardware resource used for image forming processing; (Fig. 3, control circuit)
and
a program for performing processing concerning image formation, (Fig. 8
program for copying)
wherein said apparatus comprises:

It does not explicitly disclose "a reading type changing part changing a type of reading an original during an plurality of originals which include different types of originals in a mixed manner being read;"

However, Fig. 6 and column 8, lines 33-67 that mixed originals can be read in. While it does not explicitly state that there is a changing part, column 7, lines 28-38 discloses that sensor SE3 detects vertical or horizontal sheets, so the reading of the

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different sheets would obviously be changed in order to read the horizontal or vertical document according to the state of the sensor SE3. This part could be implemented as a part of the first CPU 100, since it just facilitates the changing of the scanning processing to detect different types of documents.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a changing part.

The motivation would have been to allow the documents to be read in properly.

Therefore, it would have been obvious to alter or improve Ito to obtain the invention as specified.

a grouping part grouping printing paper sheets on which images have been formed based on the plurality of originals. (Fig. 22 shows a discharge subroutine. Examples of outputs are in Figs.6 and 7)

Regarding claims 2, 10, Ito discloses the image forming apparatus as claimed in claim 1, wherein:

said reading type changing part changes a type of reading an original in response to a reading type change instruction input by an operator. (Fig. 2 shows a control panel to be manipulated by the operator to change the mode of operation.)

Regarding claim 3, Ito discloses the image forming apparatus as claimed in claim 2, wherein:

said type comprises a type of an original as to whether the original has an image on a single side thereof or images on both sides thereof. ()

Regarding claims 4, 13, Ito discloses the image forming apparatus as claimed in claim 1, wherein:

said type comprises a size of the original (abstract)

Regarding claims 5, 14, Ito discloses the image forming apparatus as claimed in claim 4, further comprising a size detecting part detecting the size of the original.
(column 3, lines 37-47 – automatic size detection)

Regarding claim 6, Ito discloses the image forming apparatus as claimed in claim 5, wherein:

said reading type changing part changes the type of reading an original when the size of an original detected by said size detecting part immediately before is different from the size of an original which is read subsequently. (Fig. 6 and Fig. 7 - documents read in are detected to have different dimensions and are read in a changed manner)

Regarding claims 7, 16, Ito discloses the image forming apparatus as claimed in claim 5, wherein:

said size detecting part stops a size detection operation in response to a reading size changing instruction input by an operator. (column 7, lines 47-52 – the one-in-one

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mode where a single document - would have one size – since Ito refers to pages in Figs.6 and 7 as being different documents. This indicates that in this mode, there is no need to worry about size)

Regarding claims 8, 12, 15, Ito discloses the image forming apparatus as claimed in claim 1, wherein:

in case the reading type changing part changes the type of reading an original, an image of an original which is read subsequently is formed on a printing paper sheet which is different from a printing paper sheet on which an image is formed immediately before the reading type is changed. (column 1, lines 24-28 that different sheets are supplied for the partition and cover pages, indicating that they would be printed on the different papers.)

Regarding claims 9, 69, Ito discloses an image forming apparatus comprising:
a hardware resource used for image forming processing; (Fig. 3, control circuit)
and

a program for performing processing concerning image formation; (Fig. 8 – program for copying)

wherein said apparatus comprises:

a printing type changing part changing a type in which a read image of an original is formed on a printing paper sheet, during a plurality of originals which include different

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types of originals in a mixed manner being read; (again, column 1, lines 24-28 discloses that different sheets are supplied for the partition and cover pages, indicating that they would be printed on the different papers. Again, with similar reason as claim 1 above, there is not necessarily a print change part disclosed, but one can obviously see that it could be part of the functionality of the CPU 100 or the print processing section 240) and

a grouping part grouping the printing paper sheets on which images have been formed based on the plurality of originals. (Fig. 22 shows a discharge subroutine. Examples of groups outputs are in Figs.6 and 7)

Regarding claim 11, Ito discloses the image forming apparatus as claimed in claim 9, wherein:

said type comprises a type of an original as to whether an image of original is formed on a single side of a printing paper sheet or images of originals are formed on a both sides of a printing paper sheet. (column 8, lines 61-67)

Regarding claims 17, 70, Ito discloses an image forming apparatus comprising:
a hardware resource used for image forming processing; (Fig. 3, control circuit)
a program for performing processing concerning image formation, (Fig. 8 –
program for processing)

wherein said apparatus comprises:

a paper inserting part inserting predetermined paper sheet into a plurality of printing paper sheets on which images are formed based on a plurality of originals having different types of originals in a mixed manner; (Fig. 51, column 26, lines 38-48) and

a grouping part grouping the printing paper sheets. (Fig. 22 shows a discharge subroutine. Examples of groups outputs are in Figs.6 and 7)

Regarding claim 18, Ito discloses the image forming apparatus as claimed in claim 17, wherein:

said paper inserting part inserts a predetermined paper sheet subsequent to a printing paper sheet on which an image of original read immediately before is formed in response to a paper inserting instruction input by an operator, during the plurality of originals being read. (Fig. 51 and column 26, lines 38-48)

Regarding claims 19, 71, Ito discloses an image forming apparatus comprising:
a hardware resource used for image forming processing; (Fig. 3, control circuit)
a program for performing processing concerning image formation, (Fig. 8 – program for processing)

wherein said apparatus comprises: an original separating part which, in response to an original, separating instruction input by an operator during a plurality of originals

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having different types of originals in a mixed manner being read, (operator sets a combination mode as in column 8, lines 33-67) forms an image of original immediately subsequent to reception of said instruction onto a printing paper sheet which is different from a printing paper sheet on which an image of original read immediately before the reception of said instruction is formed; (column 1, lines 24-28 that different sheets are supplied for the partition and cover pages, indicating that they would be printed on the different papers.) and

a grouping part grouping the printing paper sheets on which images have been formed based on the plurality of originals. (Fig. 22 shows a discharge subroutine. Examples of groups outputs are in Figs.6 and 7)

Regarding claims 20-23, Ito discloses further comprising an automatic original feeding part which automatically reads the plurality of originals set therein. (Fig. 1 - ADF 50)

Regarding claims 24-28, Ito discloses wherein:

in addition to the image of original, a page number is printed on the printing paper sheet. (See Fig. 6. Although Ito calls them "documents", one can certainly see that it would be obvious that they can be pages)

Regarding claims 29-32, Ito discloses wherein:

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the page number is not printed on a side of the printing paper sheet on which the image of original is not formed. (Again, Fig. 6 shows a number on a front side, it would have been obvious to print a page number on the back side as well since it is known in the art of printing) .

Regarding claims 33-36, Ito discloses further comprising a recording part which stores data of each image which is formed on the printing paper sheet. (column 17, lines 50-58)

Regarding claims 37-40, Ito discloses wherein:

the data stored by said recording part are integrated. (In Figs. 6, 7, the stored data is printed in a combined manner)

Regarding claims 40-43, Ito discloses wherein:

said grouping part groups the plurality of printing paper sheets by attaching a front cover or a back cover to said plurality of printing paper sheets. (Figs. 6, 7 shows that a first page is a cover sheet)

Regarding claims 72-75. Ito discloses further comprising a sorting step of sorting and ejecting the plurality of printing paper sheets in case of ejecting a plurality of groups of printing paper sheets, which groups are obtained in said grouping step. (column 3, lines 22-25 - sheet supply means)

II. Claims 44-67 rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (U.S. Patent No. 5,839,019) in view of Nakata et al (U.S. Patent No. 6,943,921)

Regarding claims 44-47, Ito discloses a method for printing mixed originals. It does not go into detail regarding the finishing of the printed material.

Thus, Ito does not explicitly disclose "said grouping part groups the plurality of printing paper sheets by binding them with a staple or punching them."

However, Nakata discloses in column 6, lines 25-32 that a finisher can perform stapling.

Ito and Nakata are combinable because both are in the art of copying documents.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have stapled or bound documents.

The motivation would have been to organize the printed documents.

Therefore, it would have been obvious to combine Ito and Nakata to obtain the invention as specified.

Regarding claims 48-51, the secondary reference, Nakata discloses wherein:

said grouping part groups the plurality of printing paper sheets in response to a finish instruction input by an operator. (Fig. 4 shows an operation panel for an operator to choose finishing options)

Regarding claims 52-55, Ito discloses further comprising a sorting part which sorts and ejects the plurality of printing paper sheets on which images of the plurality of originals are formed. (column 3, lines 22-25 - sheet supply means)

Regarding claims 56-59, Ito discloses wherein:

said sorting part sorts and ejects the plurality of printing paper sheets in use of the data of images of originals. (column 3, lines 22-25 - sheet supply means supplies sheets so that the image forming means can print on them)

Regarding claims 60-63, Ito discloses wherein:

said sorting part ejects the plurality of printing paper sheets with changing an orientation or shifting a position thereof. (column 3, lines 22-25 - sheet supply means. And see Fig. 6, 7 that the orientation can be changed.)

Regarding claims 66-67, the secondary reference, Nakata discloses wherein:

said sorting part sorts and ejects the plurality of printing paper sheets in response to a finish instruction input by an operator. (Fig. 4 shows an operation panel for an operator to choose finishing options)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625